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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,580	12/22/2003	Su-wen UENG	D/A 3523	1579

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EXAMINER	
MORRISON, THOMAS A	
ART UNIT	**PAPER NUMBER**
3653	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/707,580	UENG ET AL.	
	Examiner	Art Unit	
	Thomas A. Morrison	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *11-17 and 20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,18 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species I, Figures 4-10, which is directed to claims 1-10, 18 and 19, in the reply filed on September 12, 2005 is acknowledged. The traversal is on the ground(s) that the subject matter of all species is sufficiently related that a thorough search for the subject matter of any one species would encompass a search for the subject matter of the remaining species. Thus, search and examination of the entire application could be made without serious burden. This is not found persuasive because the instant application is directed to two (2) patentably distinct species, which have significantly different structures. Searching for these significantly different structures places an undue burden on the examiner.

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

2. Claim 1-10, 18 and 19 are objected to because of the following informalities: (1) the numbering of the claims is improper, e.g., claim 1 is identified by "[c1]". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10, 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the omitted structural relationship in claim 1 between the claimed elements, that allows the first and second flag bodies to interact such that at least one of the first and second flag bodies rotates based on rotation of the other of the first and second flag bodies; (2) the omitted structural relationship in claims 2-7, between the first and second flag bodies, that allows the first and second flag bodies to rotate as claimed.

With regard to claim 7, it is also unclear what structure rotates the second flag body to a third position, as claimed.

Regarding claim 1, this claim recites that an object moving in a first direction and contacting the first projection of the first flag body rotates the first flag body in a second direction. This appears to be inaccurate, in that Fig. 6 of the instant application appears to show that the first flag body is rotated in the same direction that the object moves, not

a different second direction, as appears to be claimed. The directions of movement need to be further defined.

Claims 18-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, MPEP, section 2173.05(p) states, "A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph." Id. Claim 18 and its dependent claim 19 recite **the articulated flag arrangement comprising:** a first flag body..., and then recite **the method comprising: passing a signal relative to one of the first and second flag bodies**... Since claim 18 and its dependent claim 19 claim an apparatus and the method steps of using the apparatus, these claims are indefinite.

The above indefiniteness problems are merely exemplary. Applicant should review the claims and correct such problems as well as any lack of antecedent basis problems.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 18-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In particular, claims 18-19 are directed to neither a "process" nor a "machine," but rather embrace or overlap two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as

to set forth the statutory classes of invention in the alternative only. See, MPEP, section 2173.05(p). More specifically, claims 18-19 recite both a process and a machine.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2, 4-6, 18 and 19, as best understood, are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,926,272 (Carter et al.).

Regarding claim 1, Figs. 3-9 show an articulated flag member arrangement, including

a first flag body (22) having a first projection, the first flag body (22) pivotably connected (Fig. 4) to a device such that an object (90) moving in a first direction (i.e., moving along first path 110) and contacting the first projection of the first flag body (22) rotates the first flag body (22) in a second direction (upward in Fig. 4);

a second flag body (23) having a first projection, the second flag body (23) pivotably connected (Fig. 3) to the device such that an object moving in a direction opposite to the first direction (i.e. moving along second path 150) and contacting the first projection of the second flag body (23) rotates the second flag body (23) in a

direction opposite to the second direction (i.e., rotates second flag body down in Fig. 4), the first and second flag bodies interacting such that at least one of the first and second flag bodies rotates based on rotation of the other of the first and second flag bodies. Figs. 6 and 9-10 of the instant application show first and second flag bodies that appear to move in the same direction that a sheet moves when it contacts the first and second flag bodies. Similarly, the first and second flag bodies (22 and 23, respectively) of the Carter et al. patent move in the same direction that the sheet moves when it contacts the first and second flag bodies (22 and 23) of Carter et al. As such, it is the examiner's position that Carter et al. operates in the same manner and meets the function limitations, as claimed. The first and second flag bodies (22 and 23) of Carter et al. are integrally joined. As such, movement of one of the first and second flag bodies of Carter et al. causes movement of the other one of the first and second flag bodies.

Regarding claim 2, Figs. 3-4 show that the second flag body (23) interacts with the first flag body (22) such that the first flag body (22) rotates in the second direction based on rotation of the second flag body (23).

Regarding claim 4, Figs. 3 shows several lateral projections (near rod 21) of the first flag body (22) that contact the second flag body (23) such that the first flag body (22) rotates in the second direction based on rotation of the second flag body (23). In particular, the first and second flag bodies have lateral projections (near rod 21) that are joined together such that the first and second flag bodies move together.

Regarding claims 5 and 6, Figs. 3 shows several curved surfaces of the first flag body (22) that contact lateral projections of the second flag body (23) such that the first flag body (22) rotates in the second direction based on rotation of the second flag body (23). For example, Fig. 3 shows that each of the first and second flag bodies (22 and 23) has curved surfaces that are integrally joined with lateral projections on each of the first and second flag bodies (22 and 23) such that the first and second flag bodies move together.

Regarding claim 18, Figs. 3-9 disclose a method for detecting bi-directional passage of an object in a processing path using an articulated flag member arrangement, the articulated flag member arrangement including

a first flag body (22) having a first projection, the first flag body (22) pivotably connected to a device (Fig. 4); and

a second flag body (23) having a first projection, the second flag body (23) pivotably connected to the device (Fig. 3), the first and second flag bodies (22 and 23) arranged to interact with each other (integrally joined together), the method comprising:

passing a signal (signal in sensor 70) relative to one of the first and second flag bodies (22 and 23), passage of the signal indicating one of an at-rest position and an operated position of one of the first and second flag bodies (22 and 23);

contacting the first projection of the first flag body (22) with an object that is traveling in a processing path (110) in a first direction (Fig. 5), causing the first flag body

(22) to rotate in a second direction (rotate up in Fig. 5) and to alter the passing of the signal; and

contacting the first projection of the second flag body (23) with an object that is traveling in a processing path (150) in a direction opposite to the first direction (Fig. 7), causing the second flag body (23) to rotate in a direction opposite to the second direction (rotate down in Fig. 7) and to alter the passing of the signal.

Regarding claim 19, Figs. 3-9 disclose interacting the second flag body (23) with the first flag body (22) such that the first flag body (22) rotates in the second direction based on rotation of the second flag body (23). The first and second flag bodies (22 and 23) are joined together such that they move together.

Conclusion

6. The fact that not all of the claims have been rejected in view of prior art should not be construed to mean that such non-rejected claims contain allowable subject matter, particularly in view of the 35 U.S.C 112, 2nd paragraph rejections and the 35 U.S.C. 101 rejections above.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on (571) 272-6944. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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